To this end, a second aspect of the present invention provides a syringe driver assembly for imparting translational movement to a syringe plunger, comprising a motor driven unthreaded shaft, at least one bearing mounted obliquely to the shaft and having at least one point of contact therewith, and an actuator linked to the bearing for contacting a thumbplate of the plunger wherein rotation of the shaft causes movement of the at least one bearing along the shaft to affect movement of the actuator.